

## In the Claims

Please amend claims 56, 59 - 66, 68 - 72 and 74 and add new claims 75 - 81 as follows:

1 - 54. (Canceled)

55. (Withdrawn) In combination, a catheter tube for selective flow through a hollow passageway of the catheter tube to or from a patient and a balloon selectively inflated to close and seal the hollow passageway at a distal end of the catheter tube against entry of blood when flow is not occurring through the hollow passageway;

a seal being interposed between the catheter tube and a stem within the hollow passageway at a proximal end of the catheter tube, the stem being selectively displaceable along the hollow passageway through a central opening in the seal, the seal being selectively compressed by a control to clamp against the stem to prevent stem displacement.

C 1  
56. (Amended) ~~In combination, a~~ A system for establishing intermittent fluid communication with a patient's bloodstream, catheter tube comprising: a hollow unobstructed passageway

a catheter including first and second lumens extending therethrough from a proximal end of the catheter to a distal end thereof, wherein, when in an operative position, the distal end of the catheter resides within a blood vessel of a patient for selective liquid flow therethrough to or from a patient; and

a first sealing balloon positionable within a distal end of the first lumen, so that, when inflated, the first balloon the passageway and selectively inflated to span across the entire passageway to close, seals and completely occlude all of the hollow passageway at a the distal end of the first lumen to prevent blood flow thereinto; and

a deflation mechanism for deflating the first balloon to reopen the first lumen to blood flow thereinto while the distal end of the catheter remains within the blood vessel  
~~tube against entry of blood when flow is not occurring through the hollow passageway.~~

57. (Withdrawn) In combination, a catheter tube comprising a hollow unobstructed passageway for selective liquid flow therethrough to or from a patient and a balloon positionable within the unobstructed passageway and selectively inflated to close, seal and completely occlude all of the hollow passageway at a distal end of the catheter tube against entry of blood when flow is not occurring through the hollow passageway, the balloon comprising an expandable portion of a wall of the catheter tube.

58. (Withdrawn) In combination, companion ingress and egress catheter tubes for selective flow through a hollow passageway in each catheter tube respectively to and from the patient and a balloon associated with each catheter to accommodating selective inflation of the balloons to generally concurrently close and seal the two hollow passageways at respective distal ends of the ingress and egress catheter tubes against entry of blood from a vessel of the patient when flow is not occurring through the hollow passageways, the balloons being carried near distal ends of spaced inflation/deflation stems extending respectively within the hollow passageways for substantially the full length of the respective catheter tubes;

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a seal interposed between each catheter tube and the associated stem within the hollow passageway of said catheter tube at a proximal end of said catheter tube, each stem being selectively displaceable through a central opening within the associated seal;

the seal being selectively compressed by a control to clamp against the associated stem to prevent stem displacement.

59. (Amended) A method of ~~addressing the problem of clotting in idle ingress and egress~~  
companion sealing a catheter tubes indwelling within a vessel of a ~~medical~~ patient, comprising the acts of:

advancing a first deflated balloon along ~~an entirely hollow and unobstructed a first lumen of the catheter each~~ idle ingress and egress catheter tube to a position at least partially radially within a distal end thereof each;

inflating the ~~respective first balloons to radially span cross-sectionally to seal the first lumen and radially contiguously engage, close, seal and occlude the lumen at the distal end thereof to prevent fluid from entering the distal end of the first lumen each catheter tube, thereby preventing blood infiltration and clotting by denying blood access to the entirely occluded lumen of each catheter tube; and~~

purging the first lumen.

60. (Amended) A method according to claim 59, wherein the first lumen is purged further comprising the act of purging the hollow interior of one or both catheter tubes in a proximal-to-distal direction with a suitable liquid under pressure prior to the inflating act the first balloon.

61. (Amended) A method according to claim 59, wherein the first lumen is purged further comprising the act of purging the hollow interior of one or both catheter tubes after the inflating act the first balloon using a purging liquid under pressure to , the pressure of the purging liquid temporarily deforming and unsealing the inflated first balloon.

62. (Amended) A method according to claim 59, further comprising:

~~acts of~~ deflating ~~both previously inflated the first balloons~~ to eliminate the occlusion of ~~each the first~~ lumen; and

causing one of ingress and egress flow through the first respective lumens of the catheter tubes after the first balloon has been deflated.

63. (Amended) A method according to claim 62, further comprising ~~an act of withdrawing the first balloons along the first lumens of the catheter tubes after the deflating the first balloon act and before the causing flow through the first lumen act.~~

64. (Amended) A method of sealing ~~addressing the problem of clotting in a catheter tube~~ indwelling within a vessel of a patient comprising the acts of:

terminating flow along a hollow interior passageway of the ~~indwelling catheter tube~~;  
after the terminating act, inflating a balloon to ~~contiguously engage, close, and seal the~~ hollow interior passageway at a distal end of the ~~indwelling catheter tube~~ to ~~deny prevent~~ blood in the vessel from entering access to the hollow interior passageway thereby preventing clotting within the catheter tube;

deflating the previously inflated balloon to unseal ~~eliminate the occlusion of the hollow interior passageway when and causing~~ flow through the hollow interior passageway of the catheter is desired tube; and

withdrawing the balloon from ~~association with the catheter tube~~ after the deflating act and before the causing act.

65. (Amended) ~~In combination, a~~ A system for establishing intermittent fluid communication with a patient's bloodstream, catheter tube comprising:

a catheter including a lumen extending therethrough from a proximal end of the catheter to a distal end thereof, wherein, when in an operative position, the distal end of the catheter resides within a blood vessel of a patient for selective flow through a hollow passageway of the catheter tube to or from a patient; and

a balloon which, when inflated, selectively inflated to completely span diametrically the hollow passageway and physically contacts, close, and seals and occlude the entire cross section of the hollow passageway at a the distal end of the lumen to prevent blood flow thereinto; and

a deflation mechanism for deflating the balloon to reopen the lumen to blood flow  
thereinto while the distal end of the catheter remains within the blood vessel ~~tube against entry of~~  
~~blood and other debris when flow is not occurring through the hollow passageway.~~

66. (Amended) ~~A combination~~ The system according to Claim 65, wherein the balloon is carried near a distal end of an inflation/deflation stem, the stem extending within the ~~hollow passageway~~ lumen between the proximal and distal ends of ~~for substantially the full length of the catheter tube.~~

68. (Amended) ~~A combination~~ The system according to Claim 66, wherein a seal is interposed between the catheter ~~tube~~ and the stem within the lumen ~~hollow passageway~~ at the a proximal end of the catheter ~~tube~~, the stem being selectively displaceable along the ~~hollow passageway~~ lumen through a central opening in the seal.

69. (Amended) ~~A combination~~ The system according to Claim 65, further comprising a port adjacent the proximal end of the catheter ~~tube~~ by which a flushing liquid under pressure is selectively displaced proximal-to-distal within the lumen ~~hollow passageway of the catheter tube.~~

70. (Amended) ~~In combination,~~ A system for establishing intermittent fluid communication with a patient's bloodstream, comprising:

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~~companion ingress and egress side-by-side~~ first and second non-concentric catheters each of the first and second catheters including a lumen extending therethrough between proximal and distal ends thereof, wherein, when in an operative position, the distal ends of the first and second catheters reside within a blood vessel of a patient for selective liquid flow through a hollow passageway in each catheter tube respectively to and from the patient; and

first and second a balloons positionable within distal ends of the first and second

catheters, respectively, so that, when inflated, the first and second balloons with each catheter to accommodating selective inflation of the balloons to expand the balloon cross sectionally across the hollow passageway of the associated catheter tube to generally concurrently physically engage, close,] seal [and fully occlude the two hollow passageways at the respective distal ends of the lumens of the first and second ingress and egress catheters tubes against entry of blood from a vessel of the patient when flow is not occurring through the hollow passageways to prevent blood flow thereinto; and

a deflation mechanism for deflating the balloon to reopen the lumen to blood flow thereinto while the distal end of the catheter remains within the blood vessel.

71. (Amended) ~~A combination~~ The system according to Claim 70, further comprising a first inflation/deflation stem extending within the lumen of the first catheter and a second wherein the balloons are carried near distal ends of spaced inflation/deflation stems, the stems extending respectively within the lumen of the second catheter, wherein each of the first and second stems extends hollow passageways for substantially the full length of the respective first and second catheters, respectively and wherein the first and second balloons are carried near distal ends the first and second stems, respectively tubes.

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72. (Amended) ~~A combination~~ The system according to Claim 71, wherein a contiguous seal is interposed between each proximal ends of the first and second catheters tube and the associated first and second stems, respectively, within the hollow passageway lumen of said the respective one of the first and second catheter tube at a proximal end of said catheter tube, each of the first and second stems being selectively displaceable along the hollow passageway the lumen of the respective one of the first and second catheters through a central opening in the corresponding seal.

74. (Amended) ~~A combination~~ The system according to Claim 70, further comprising a port near the proximal end of each catheter tube by which a flushing liquid under pressure is

selectively displaced proximal-to-distal within the corresponding lumen ~~hollow passageway of the catheter tubes.~~

75. (New) A method according to claim 59, wherein the catheter includes a second lumen, further comprising:

advancing a second deflated balloon along the second lumen to a position at least partially radially within a distal end thereof;

inflating the second balloon to seal the second lumen at the distal end thereof to prevent fluid from entering the distal end of the second lumen; and

prior to inflating the second balloon, purging the second lumen.

76. (New) A method according to claim 75, wherein the second lumen is purged in a proximal-to-distal direction with a suitable liquid under pressure prior to inflating the second balloon.

77. (New) A method according to claim 75, wherein the second lumen is purged after the second balloon has been inflated using a purging liquid under pressure to temporarily deform and unseal the second balloon.

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Cont 78. (New) A method according to claim 75, further comprising:

deflating the second balloon to eliminate the occlusion of the second lumen; and

causing one of ingress and egress flow through the second lumen after the second balloon has been deflated.

79. (New) A method according to claim 78, further comprising withdrawing the second balloon along the second lumen after deflating the second balloon and before causing flow through the second lumen.

80. (New) A method of treating a bodily fluid, comprising the steps of:

inserting a distal end of a catheter into a body lumen including the bodily fluid;

establishing fluid communication with the body lumen via a first lumen of the catheter to initiate a first treatment session to treat the bodily fluid;

sealing the first lumen to discontinue fluid communication with the bodily fluid  
by:

advancing a first deflated balloon along the first lumen to a position at least partially radially within a distal end thereof; and

inflating the first balloon to seal the first lumen at the distal end thereof;  
and

reestablishing fluid communication with the bodily fluid by deflating the first balloon to initiate a second treatment session.

C-1  
C-2  
81. (New) The system according to claim 56, further comprising a second sealing balloon positionable within a distal end of the second lumen, so that, when inflated, the second balloon seals the distal end of the second lumen to prevent blood flow thereinto, wherein the deflation mechanism deflates the second balloon to reopen the second lumen to blood flow thereinto while the distal end of the catheter remains within the blood vessel.